State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

AWC Volume SE SC (SW) W AR IN USGS Quad Port Moller (B-2) Alaska

Anadromous Water Catalog Number of Waterway 282-10-11900-0010 (11200)

Name of Waterway Red Cove LAKE USGS name ✓ Local name ___

Addition ✓ Deletion ___ Correction ___ Backup Information ___

For Office Use

Nomination # 96 013	[illegible] Regional Supervisor	2/6/96 Date
Revision Year: 96	Dean W Hughes	1/30/96
Revision to: Atlas ___ Catalog ___ Both X	A. Arone Drafted	3/19/96 Date
Revision Code: A-2		

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Migration	Anadromous
Coho Salmon	9/14/92, 9/7/94, 9/12/95		✓	✓	✓
Dolly Varden	9/12/95		✓	✓	✓

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as any other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments: Refer to Special Report to the Aleutians East Borough (Cooperative Agreement No93-003) selected pages are included with this form. 9/14/92 - adult observed in bay adjacent to Red Cove Lake and salmon & fry in lake. Early September 1994+1995 commercial coho catches - 1000, plus excellent sport fishing for coho salmon. 9/12/95 ADF+G aerial survey - 100 - two pound Dolly Varden and 25 coho stream plus 300 coho salmon at mouth (see attached comments).

Name of Observer (please print) James N. McCullough

Date: 9/15/95 Signature: James N McCullough

Address: 211 Mission Rd.
Kodiak, Ak. 99615

ALASKA DEPT. OF FISH & GAME
SEP 20 1995
REGION II
HABITAT AND RESTORATION DIVISION

This certifies that in my best professional judgement and belief the above information is evidence that this waterbody should be included in or deleted from the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870.

Signature of Area Biologist: James N McCullough

Rev. 7/93

COMMENTS: Refer to Special Report To the Aleutians East Borough (Cooperative Agreement No. 93-003) selected pages are included with this form.

On September 14, 1992 adult coho salmon were observed in the bay near the outlet of Red Cove Lake and salmonid fry were observed in the lake (No. 93-003).

During early September 1995, approximately 1,000 adult coho salmon were caught in the bay adjacent to Red Cove Lake by a commercial purse seine fisherman. In prior years, similar coho catches have been reported during the same time period.

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On September 12, 1995, an ADF&G aerial survey of Red Cove Lake (see attached) reported 100 - two pound Dolly Varden and 25 adult coho in the outlet stream, plus 300 coho salmon at the mouth.

file:a:\REDCOVE.WP

25-50 adult cohos in seen in Red cove lake in late Sept. or early October of 1995. by Jim McCollough. This info came in a personal conversation between Jim and myself. Dean Hughes 1-30-96

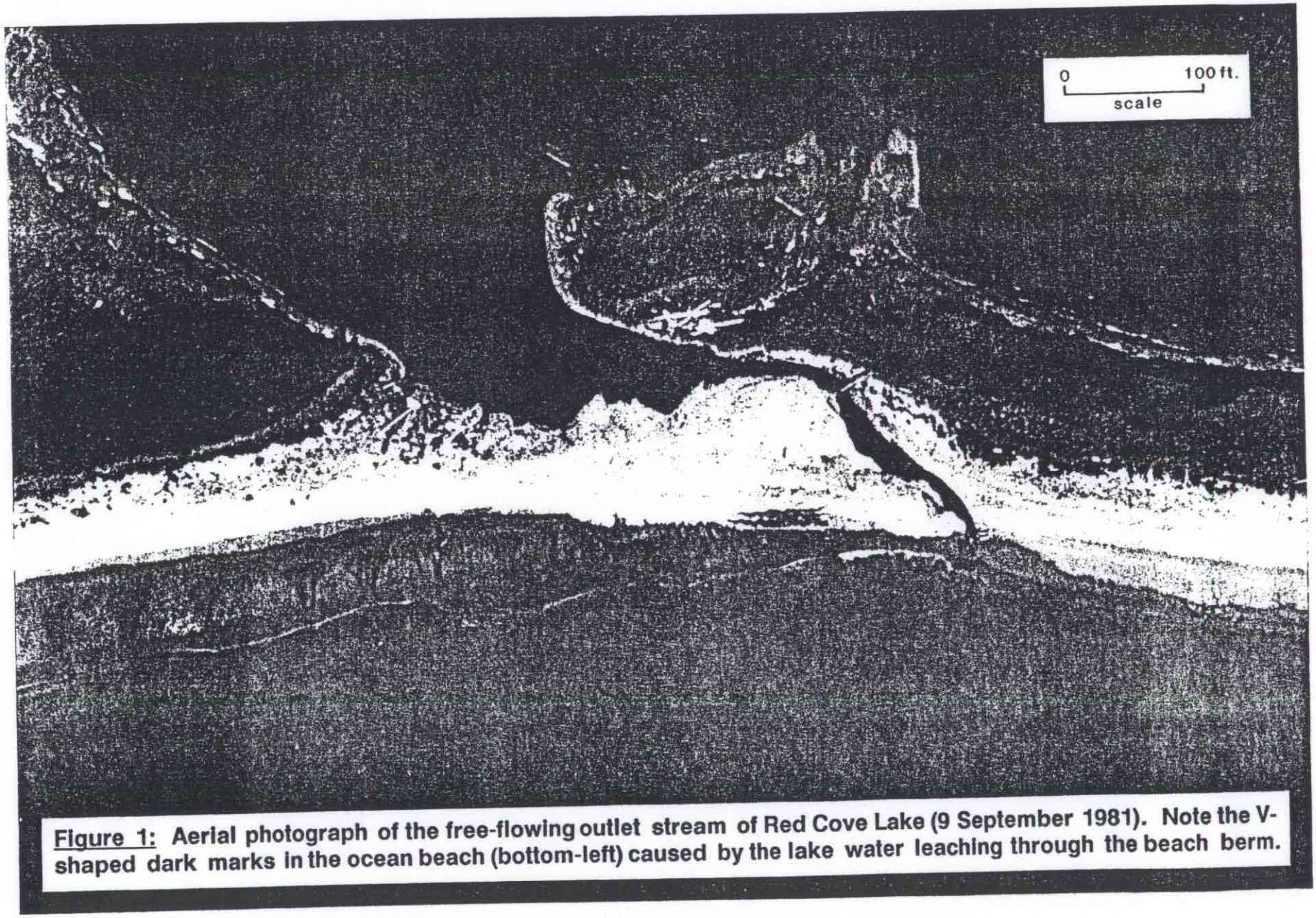

Figure 1: Aerial photograph of the free-flowing outlet stream of Red Cove Lake (9 September 1981). Note the V-shaped dark marks in the ocean beach (bottom-left) caused by the lake water leaching through the beach berm.

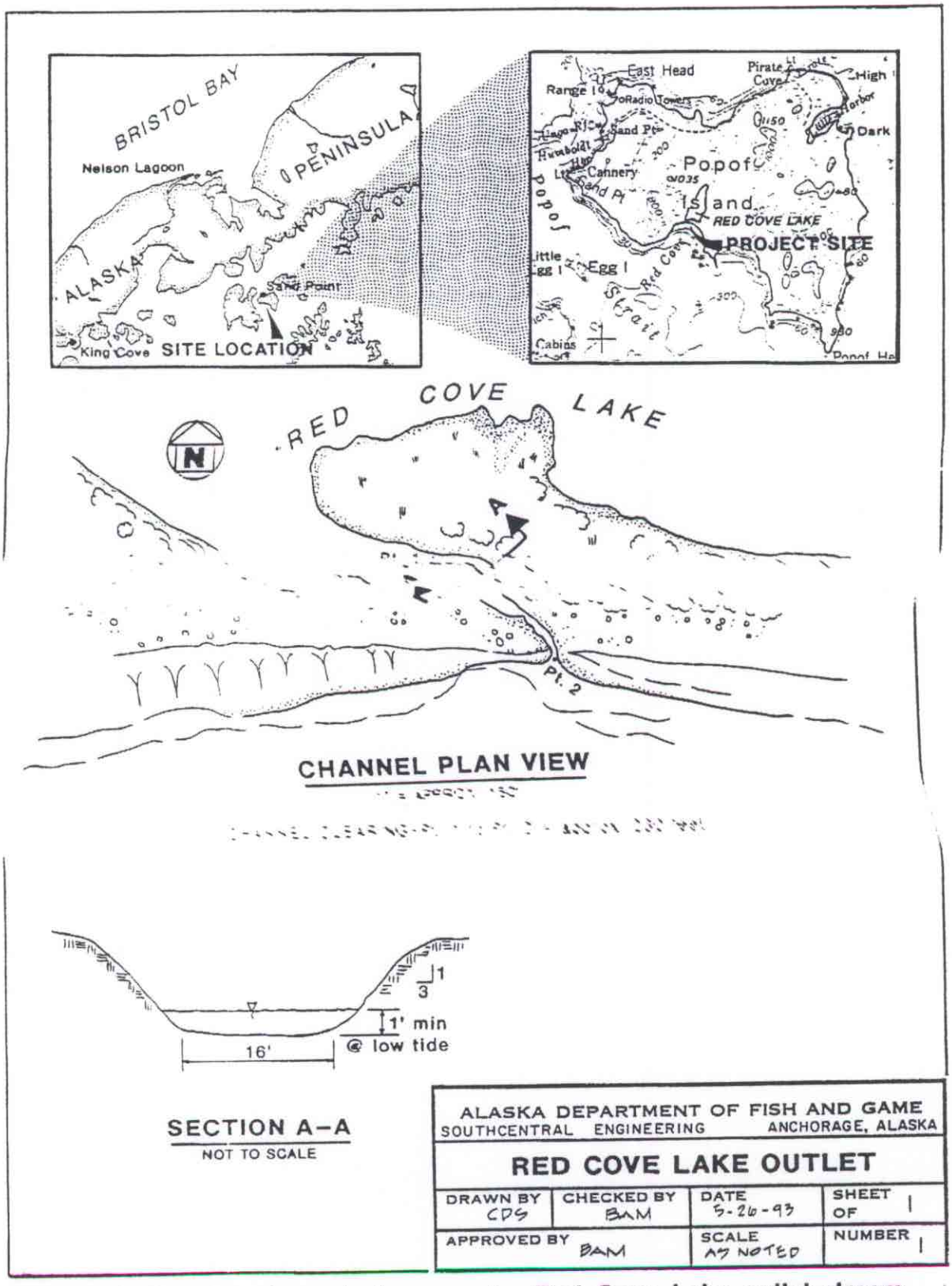

Figure 5: Plan for channel clearance for Red Cove Lake outlet stream.

Special Report To
Aleutians East Borough
(Cooperative Agreement No. 93-003)

Sand Point Area Stream Clearance Feasibility Study

by
Lorne E. White
Bruce A. McCurtain
William J. Hauser

Number 135

Alaska Department of Fish and Game
Commercial Fisheries Management
and Development Division

Carl L. Rosier
Commissioner

Jeffery P. Koenings, Ph.D.
Director

P.O. Box 25526
Juneau, Alaska 99802-5526

June 1993

push rocks and gravel from the sea side onto the beach to raise and reinforce the beach berm, especially during a high tide. Because the lakes have relatively small drainage basins, the accumulation of fresh water inside the beach berms may not provide sufficient pressure to maintain the lake outflow during these events. In addition, because of the heavy surf action, the "fines" are sorted and extracted from the beach berm materials. It is evident in Figure 1 that Red Cove Lake drains through the beach berm, even when a free-flowing outlet stream exists.

When an outlet stream does provide an anadromous migration corridor for any of these lakes, it may not function at all tidal stages. Typically, at low tide, the stream channel is poorly defined and the water is very shallow and widely spread over the exposed beach. Juvenile salmon may be stranded and vulnerable to predation. Adults may be able to enter the stream only during high-tide stages.

Finally, if a storm-surge event coincides with a high-tide series, the beach berm is highly susceptible to overtopping, which would allow intrusion by sea water. As a result, the lake water would become brackish and/or the lake basin could include a bottom layer of salt water.

Red Cove Lake

The Red Cove Lake outlet (Figure 1) on 14 September 1992 was effectively blocked to prevent anadromous salmon migration by large, cobble-size (20-30 cm), smooth surface rocks (Appendix A) (Figures 2, 3, and 4). Water from the lake was percolating through the rocks at several points along the beach area adjacent to the lake. Adult coho salmon were observed jumping in the bay adjacent to the lake, and young salmonid fry were observed in the lake near the former lake outlet. It is apparent however, that under natural conditions, this blockage may be intermittent. Hauser (Appendix A) reported during an earlier investigation that the outlet stream from Red Cove Lake was free-flowing. It was approximately 6-8 in. deep and 10-12 ft. wide. Adult coho salmon were observed in the lake at that time. Also, on 9 September 1981, the outlet stream from Red Cove Lake was well-defined and functional (Figure 1).

It was concluded from the survey that a channel could be recreated by removing the rocks. The recommended method to recreate the channel is with the use of a small backhoe (e.g., Case 580 or equivalent) or small bulldozer (e.g., a Caterpillar D4 or equivalent). The channel should be approximately 70 m (230 ft) long and 5 m (16 ft) wide at the base (with banks sloped at 1:3) to create up to about 0.3 m (1 ft) of water depth flowing in the outlet stream to allow passage by the adult salmon (Figure 5). Because of the open exposure of the site and repeated storms, no structure is recommended to maintain a permanent opening. The site should be surveyed at least

twice a year; once during the spring (early May) migration of salmon smolt out of the system and again during the summer period when adults return. Annual maintenance of the outlet stream could be performed with logistical support based at the City of Sand Point.

Common sense and cost should be the driving factors in those methods employed to clear the system on an annual basis. The location of the channel should, most likely, follow the pathway wherever a natural free-flowing stream did exist. It will be expedient to excavate a shallow channel across the lowest elevation of the beach berm to initiate water movement and to allow the flow of water to expand the newly opened stream channel. As the water flows, the channel will enlarge and the materials returned to the ocean. Machine or hand labor may be required to deepen shallow portions of the stream, particularly during the adult migration.

The intertidal reach cannot be ignored, especially during the smolt migration. If smolts migrate over an intertidal reach where there is no discrete stream channel, they may become stranded or vulnerable to predation.

A backhoe is especially practical with a large amount of rubble; however, other innovative, less expensive methods should also be considered. For example, a high pressure water sluice may be effective for removing smaller bed loads and a plow-like device towed by heavy machinery or a powerful boat may be effective to create a shallow channel. Alternatively, it may be easier and safer to anchor an engine-powered capstan on one side of the beach berm as a puller for a plow or scraper device.

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John Nelson Lake

John Nelson Lake (Figure 6) has an outlet directly to salt water on the north side of the lake (Figure 7). The west bank of the outlet is fractured rock but the east bank is made up of accumulated accretion of beach rock and sand. The channel is approximately 15 m (50 ft) wide and 60 m (200 ft) long at low tide (Figure 8). Each

M SALMON STREAM SURVEY MANAGEMENT AREA

VISIBILITY: E = EXCELLENT, G = GOOD, F = FAIR, P = POOR

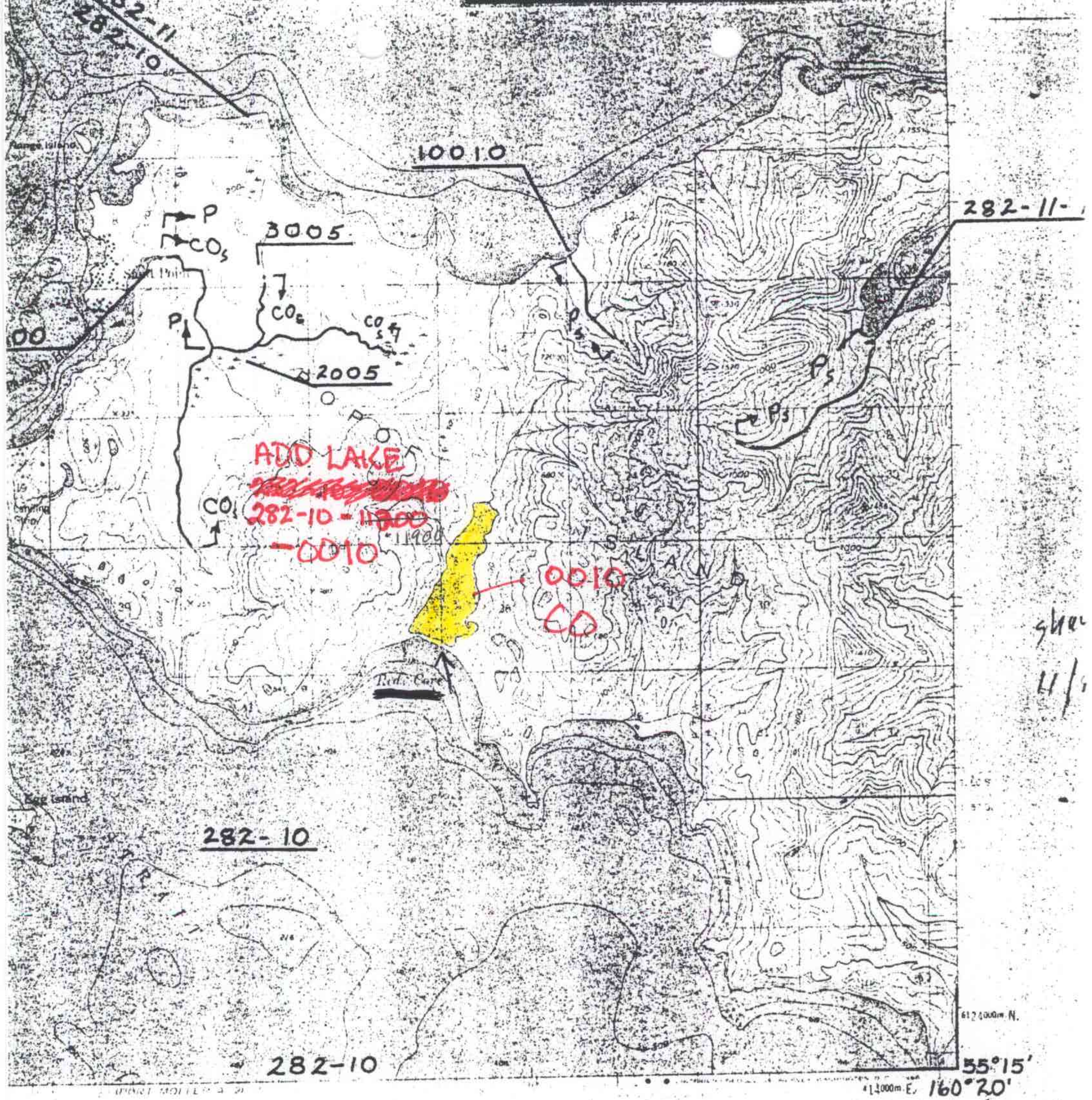
TYPE OF SURVEY: AERIAL X, FOOT ____, OTHER ____

Observer	Weather	Pilot
McCullough	2500 broken, NW 10	Scott
Date 9/12/95	General Location Sand Point	
Time Out 4:30 PM	Tide High	Aircraft
	Distance Surveyed Entire	Cub

NUMBERS OF FISH

Stream Number	Stream Name	VIS		Kings	Reds	Coho	Pink	Chum	REMARKS
281 7005	Beaver	G	Bay						Poor conditions, from what I could see through the muddy water the escapement looked good,
		P	Mouth				500		
		P	Stream						
281 7004		G	Bay						Thousands of carcasses,
		G	Mouth				100		
		G	Stream				200		
281 8004	Aliaksin	E	Bay						Lots of carcasses
		E	Mouth				0		
		E	Stream				3000		
281 8005	Aliaksin	E	Bay						Lots of carcasses
		E	Mouth				0		
		E	Stream				1500		
281 8006	Aliaksin	E	Bay						Lots of carcasses
		E	Mouth				0		
		E	Stream				7000		
282 1020	Red Cove Lake	G	Bay						100 - 2 pound dolly Varden near inlet stream
		G	Mouth			300			
		G	Stream			25			
282 1018	Humbolt	G	Bay						50 pink above lake, 25 pink in lake, 1000 pink below road; 100 coho in lake; 25 coho below road. Plus 1,500 pink carcasses
		G	Mouth						
		G	Stream			125	1075		

1/COUNT REFLECTS ONLY LIVE FISH UNLESS INDICATED IN THE "REMARKS" COLUMN



ROAD CLASSIFICATION

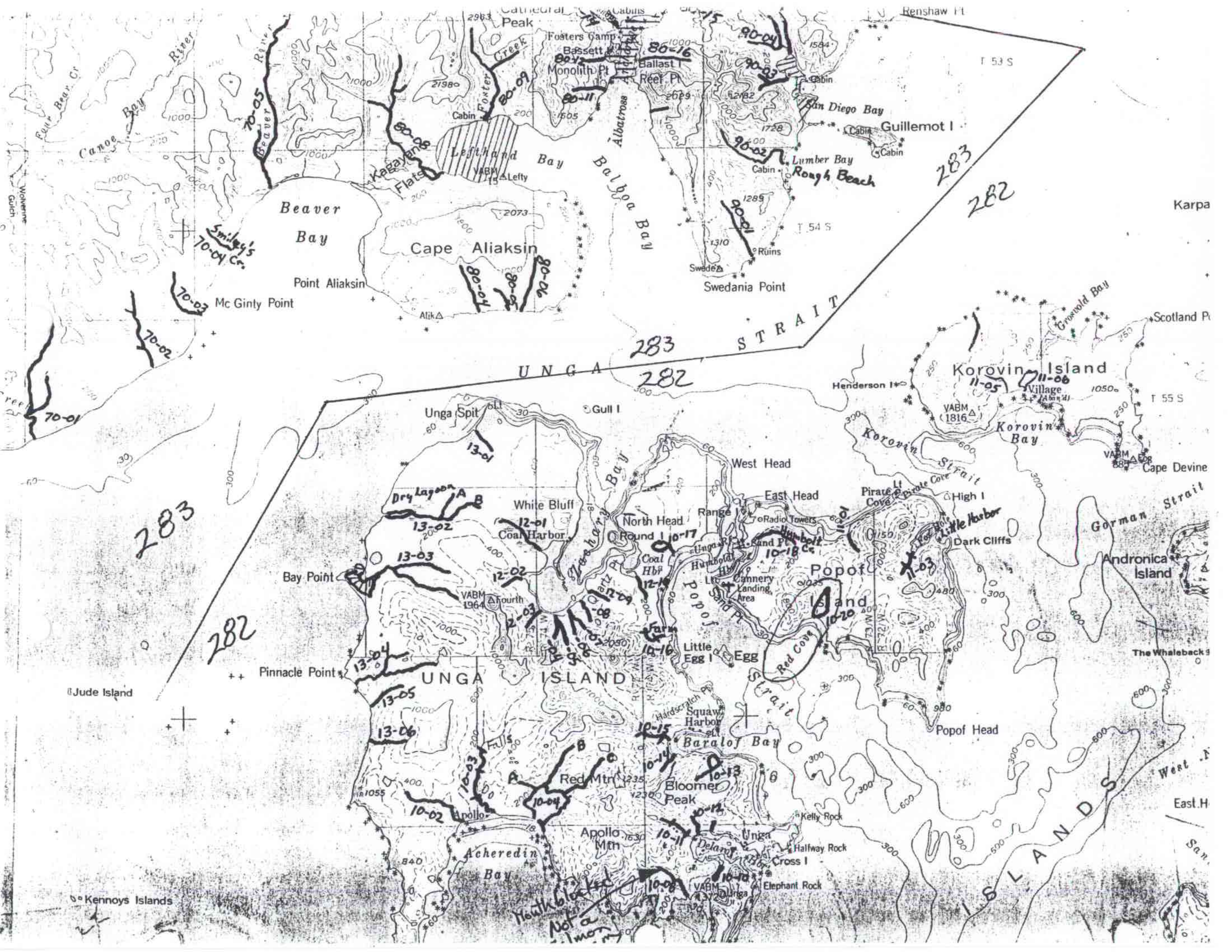
Unimproved dirt

PORT MOLLER (B-2), ALASKA

NOTE

SOLD BY U.S. GEOLOGICAL SURVEY

DENVER, COLORADO OR WASHINGTON



Peak
Fosters Camp
Bassett
Monolith Pt
Ballast I
Reef Pt
Albatross
Cabin
San Diego Bay
Guillemot I
Lumber Bay
Rough Beach
Renshaw Pt
T 53 S
T 54 S
T 55 S
Four Bear Cr
Canoe Bay
River
Beaver River
Foster Creek
Kagayan Flats
Lefthand Bay
Balboa Bay
Beaver Bay
Cape Aliaksin
Point Aliaksin
Mc Ginty Point
Smiley's Cr.
Swedania Point
Ruins
Karpa
283
282
UNGA STRAIT
Scotland Pt
Korovin Island
Henderson I
Village
Korovin Bay
Korovin Strait
Cape Devine
Gorman Strait
Andronica Island
The Whaleback
Unga Spit
Gull I
West Head
East Head
Radio Towers
Pirate Cove
High I
Little Harbor
Dark Cliffs
Dry Lagoon
White Bluff
Coal Harbor
Zachary Bay
North Head
Round I
Coal Hbr
Humboldt Cr.
Popof Island
Popof Strait
Cannery
Landing Area
Bay Point
Little Egg I
Egg
Red Cove
Popof Head
Pinnacle Point
UNGA ISLAND
Jude Island
Squaw Harbor
Baralof Bay
Falls
Red Mtn
Bloomer Peak
Apollo
Apollo Mtn
Kelly Rock
Unga
Delarof Hbr
Halfway Rock
Cross I
Elephant Rock
Acheredin Bay
Kennoys Islands
Mouth blocked
Not a salmon
ISLANDS
East H
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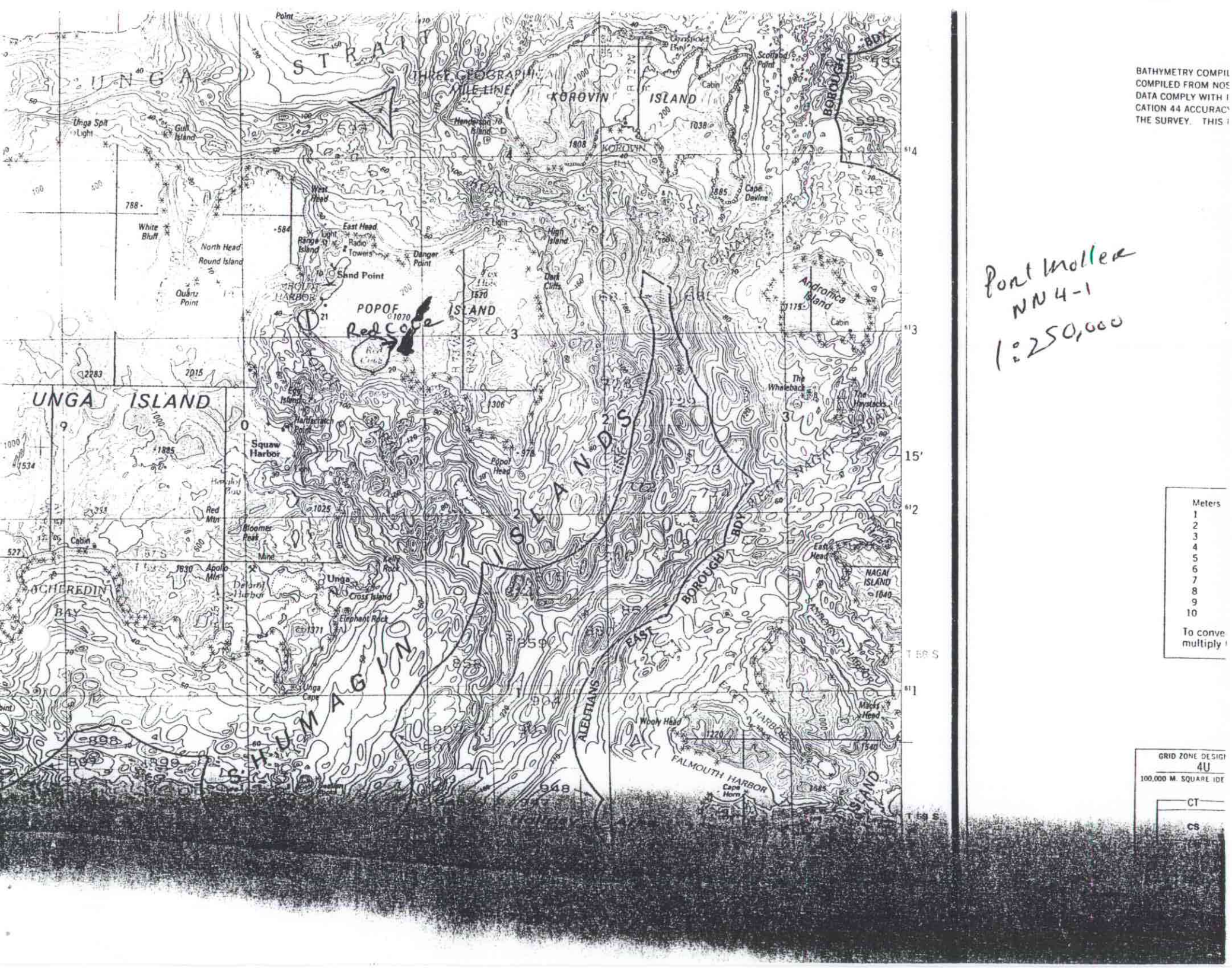

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Port Moller
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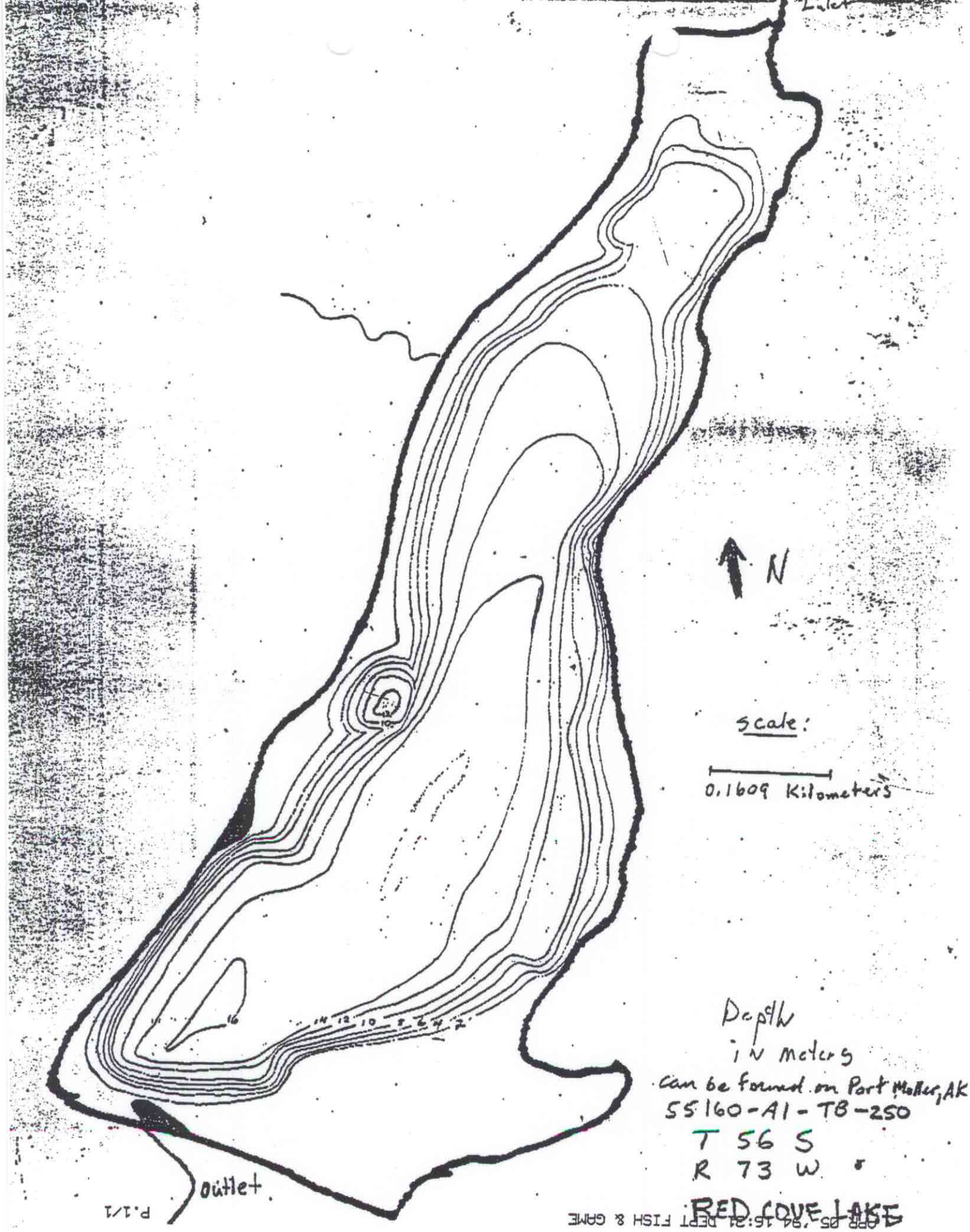

Depth
in Meters
can be found on Port Moller, AK
55160-A1-TB-250
T 56 S
R 73 W

RED COVE LAKE

State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

AWC Volume SE SC (SW) W AR IN USGS Quad Port Moller (B-2) Alaska

Anadromous Water Catalog Number of Waterway 282-10-~~H200~~ 11900

Name of Waterway Red Cove Lake outlet USGS name ✓ Local name ___

Addition ✓ Deletion ___ Correction ___ Backup Information ___

For Office Use

Nomination # 96 013

Revision Year: 96

Revision to: Atlas ___ Catalog ___ Both X

Revision Code: A-2

Regional Supervisor 2/6/96 Date

Dean W. Hughes 1/30/96

A. Sirone 3/19/96

Drafted Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Migration	Anadromous
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Dolly Varden	9/12/95		✓	✓	✓

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Kodiak, Ak. 99615

ALASKA DEPT. OF FISH & GAME
SEP 20 1995
REGION II
HABITAT AND RESTORATION DIVISION

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Rev. 7/93

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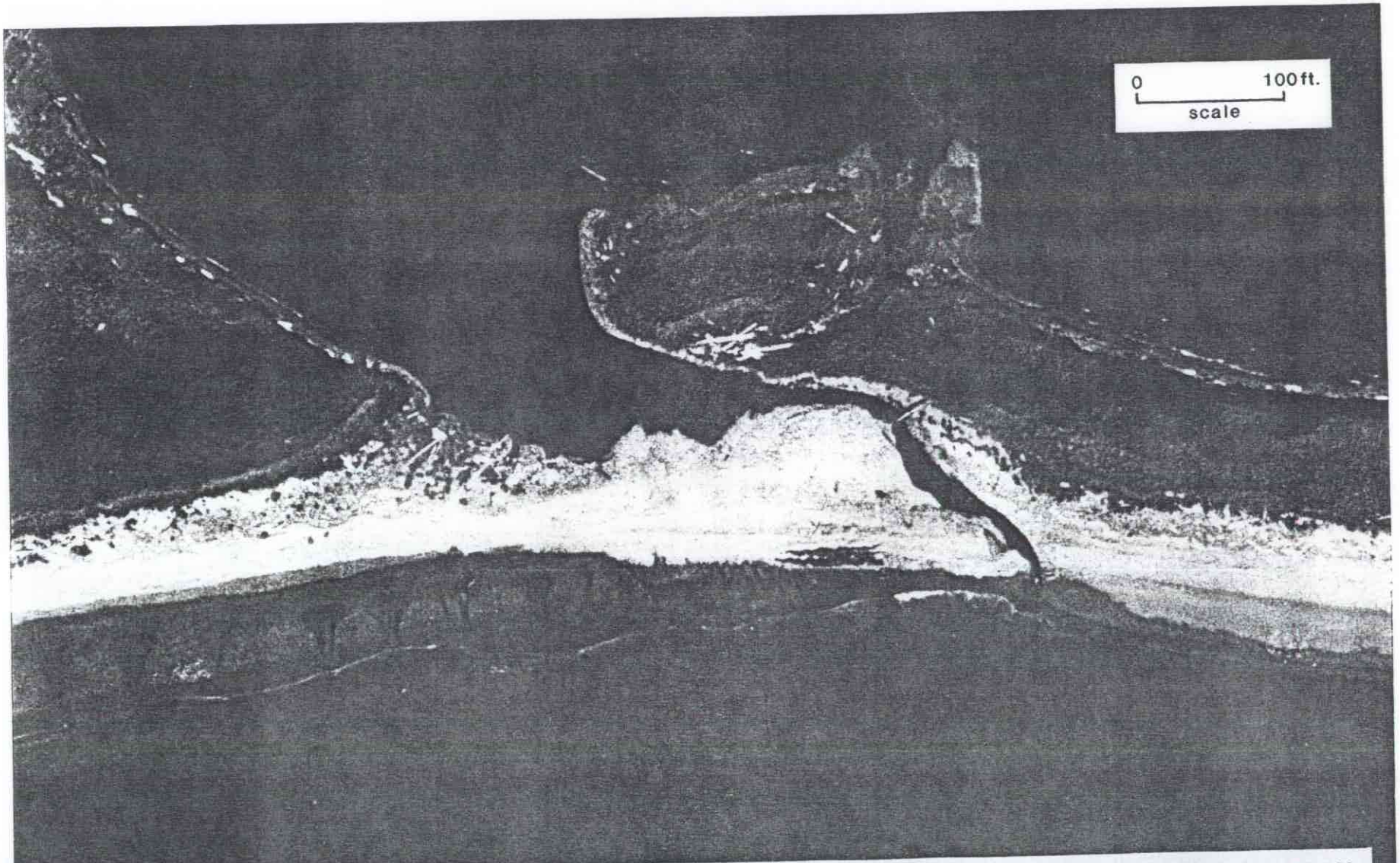

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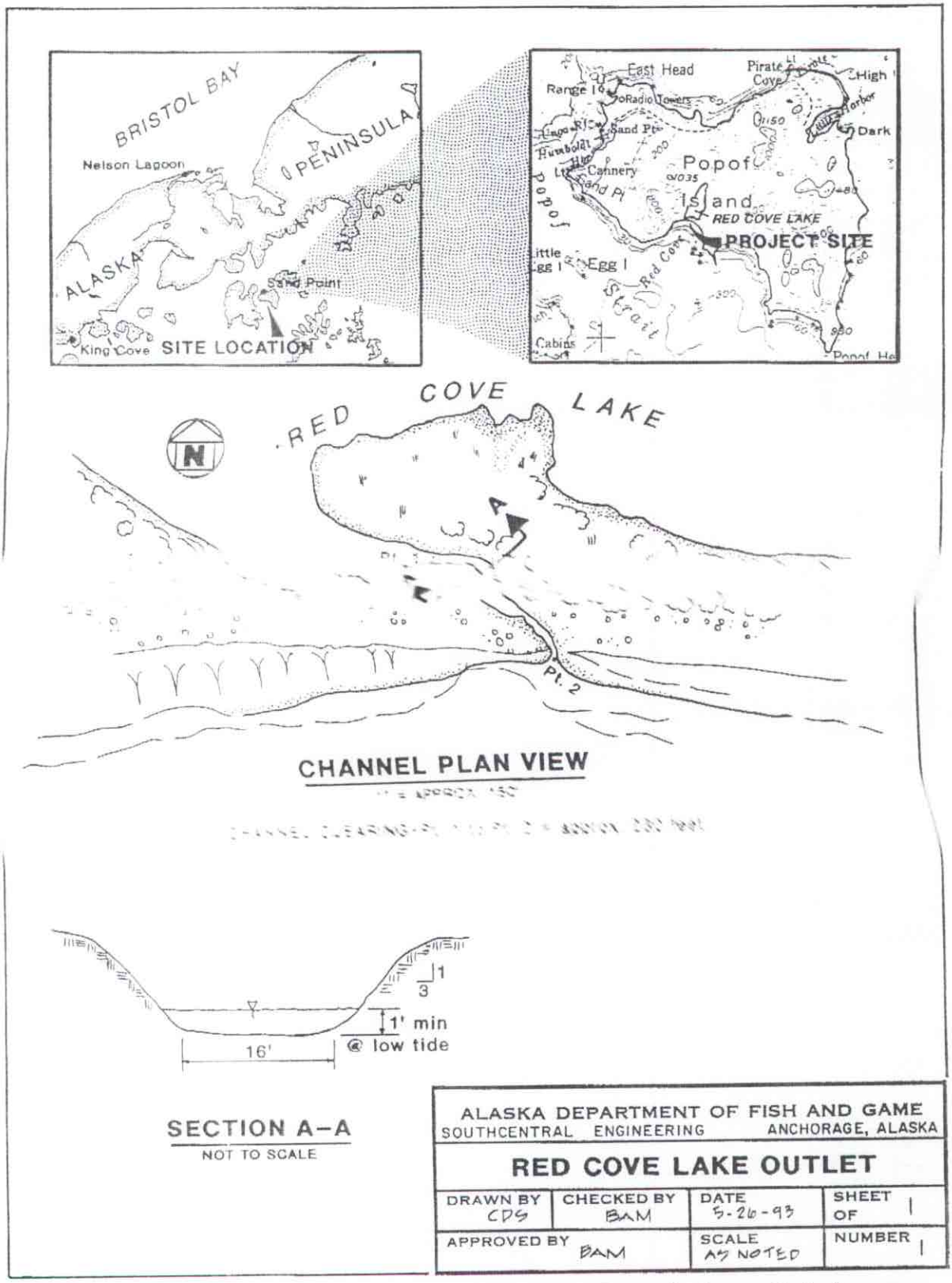

Figure 5: Plan for channel clearance for Red Cove Lake outlet stream.

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Aleutians East Borough
(Cooperative Agreement No. 93-003)

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by
Lorne E. White
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William J. Hauser

Number 135

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June 1993

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M SALMON STREAM SURVEY _____ MANAGEMENT AREA

PAGE 2 of 3

Observer	Weather	Pilot
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Date 9/12/95	General Location Sand Point	
Time Out 4:30 PM	Tide high	Aircraft
	Distance Surveyed Entire	Cub

VISIBILITY: E = EXCELLENT; G = GOOD; F = FAIR; P = POOR

TYPE OF SURVEY: AERIAL X; FOOT ____; OTHER ____

NUMBERS OF FISH

Stream Number	Stream Name	VIS		Kings	Reds	Coho	Pink	Chum	REMARKS
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		G	Stream				200		
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		E	Mouth				ø		
		E	Stream				3000		
281 8005	Aliaksin	E	Bay						Lots of carcasses
		E	Mouth				ø		
		E	Stream				1500		
281 8006	Aliaksin	E	Bay						Lots of carcasses
		E	Mouth				ø		
		E	Stream				7000		
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		G	Mouth			300			
		G	Stream			25			
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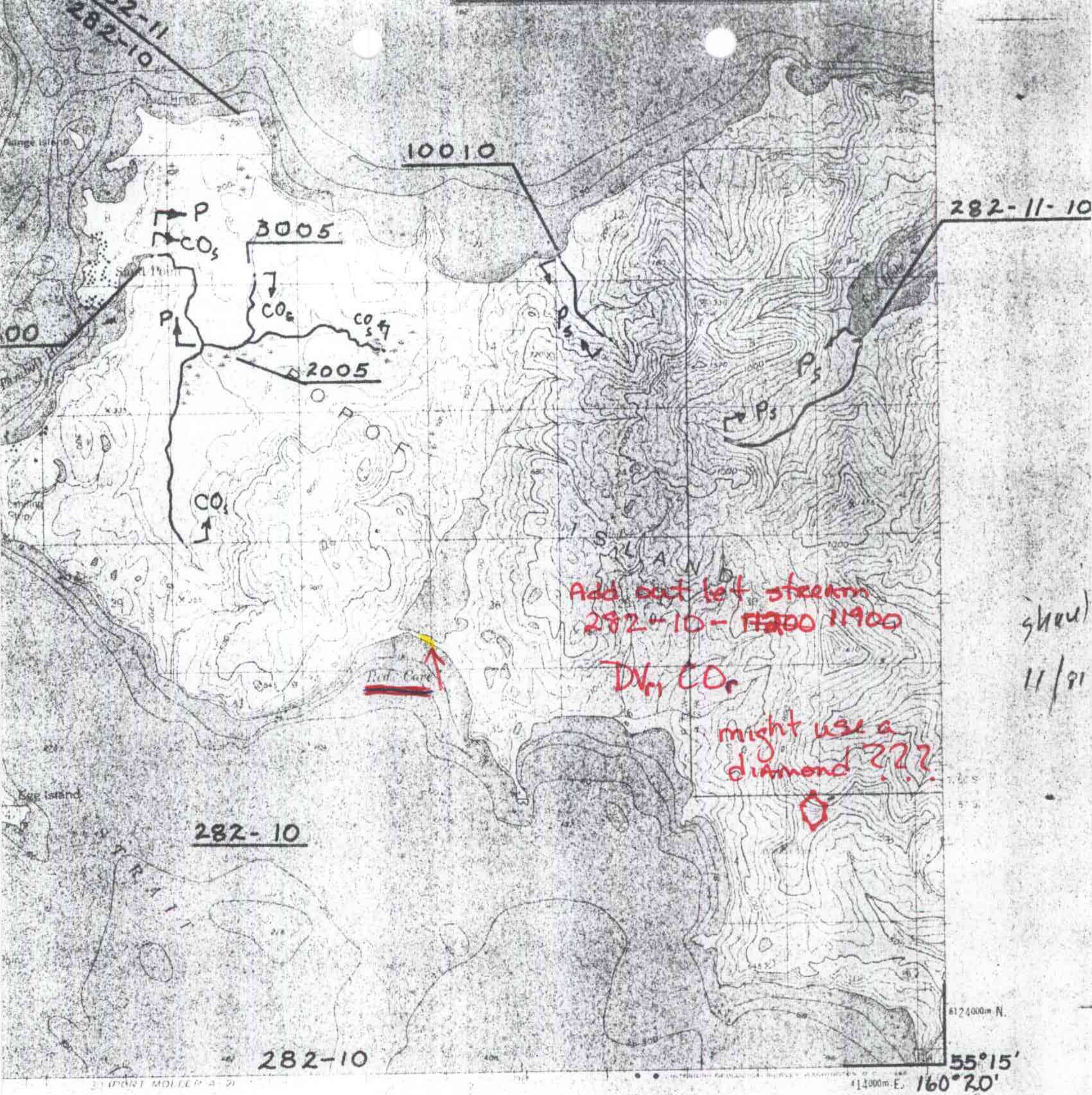
		G	Mouth						
		G	Stream			125	1075		

1/COUNT REFLECTS ONLY LIVE FISH UNLESS INDICATED IN THE "REMARKS" COLUMN



(PORT MOLLER A-2)

CONTOUR INTERVAL 100 FEET

FOR SALE BY U.S. GEOLOGICAL SURVEY
DENVER 25, COLORADO OR WASHINGTON 25, D.C.

ROAD CLASSIFICATION

Unimproved dirt

PORT MOLLER (B-2), ALASKA

1963

NOTE

This proof is sent to you for your review and comment. If you observe errors or have suggestions please make notations on the face of the map, sign and return within ... days

PORT MOLLER

NC D-14 Kathy

should 11/91


Cathedral Peak
Renshaw Pt
Fosters Camp
Bassett I
Monolith Pt
Ballast I
Reef Pt
Albatross Anchorage
San Diego Bay
Guillemot I
Lumber Bay
Rough Beach
Four Bear Cr
Canoe Bay River
Beaver River
Foster Creek
Kagayan Flats
Lefthand Bay
Balboa Bay
Beaver Bay
Cape Aliaksin
Point Aliaksin
Mc Ginty Point
Smiley's 70-04 Cr.
Swedania Point
Ruins
Karpa
UNGA STRAIT
283
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Henderson I
Korovin Island
Village
Korovin Bay
Korovin Strait
Scotland Pt
Cape Devine
Gull I
Unga Spit
West Head
East Head
North Head
Range I
Round I
Radio Towers
Pirate Cove
High I
Little Harbor
Dark Cliffs
Gorman Strait
Andronica Island
The Whaleback
Zachary Bay
White Bluff
Coal Harbor
Dry Lagoon
Bay Point
Pinnacle Point
Jude Island
UNGA ISLAND
Popof Island
Humboldt Hbr
Cannery
Landing Area
Popof Strait
Red Cove
Little Egg I
Egg I
Squaw Harbor
Baralof Bay
Red Mtn
Bloomer Peak
Apollo Mtn
Apollo
Acheredin Bay
Delarof Hbr
Unga
Kelly Rock
Halfway Rock
Cross I
Elephant Rock
Popof Head
Kennoys Islands
ISLANDS
East H
West
Mouth blocked
Not a salmon
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70-02
70-03
70-05
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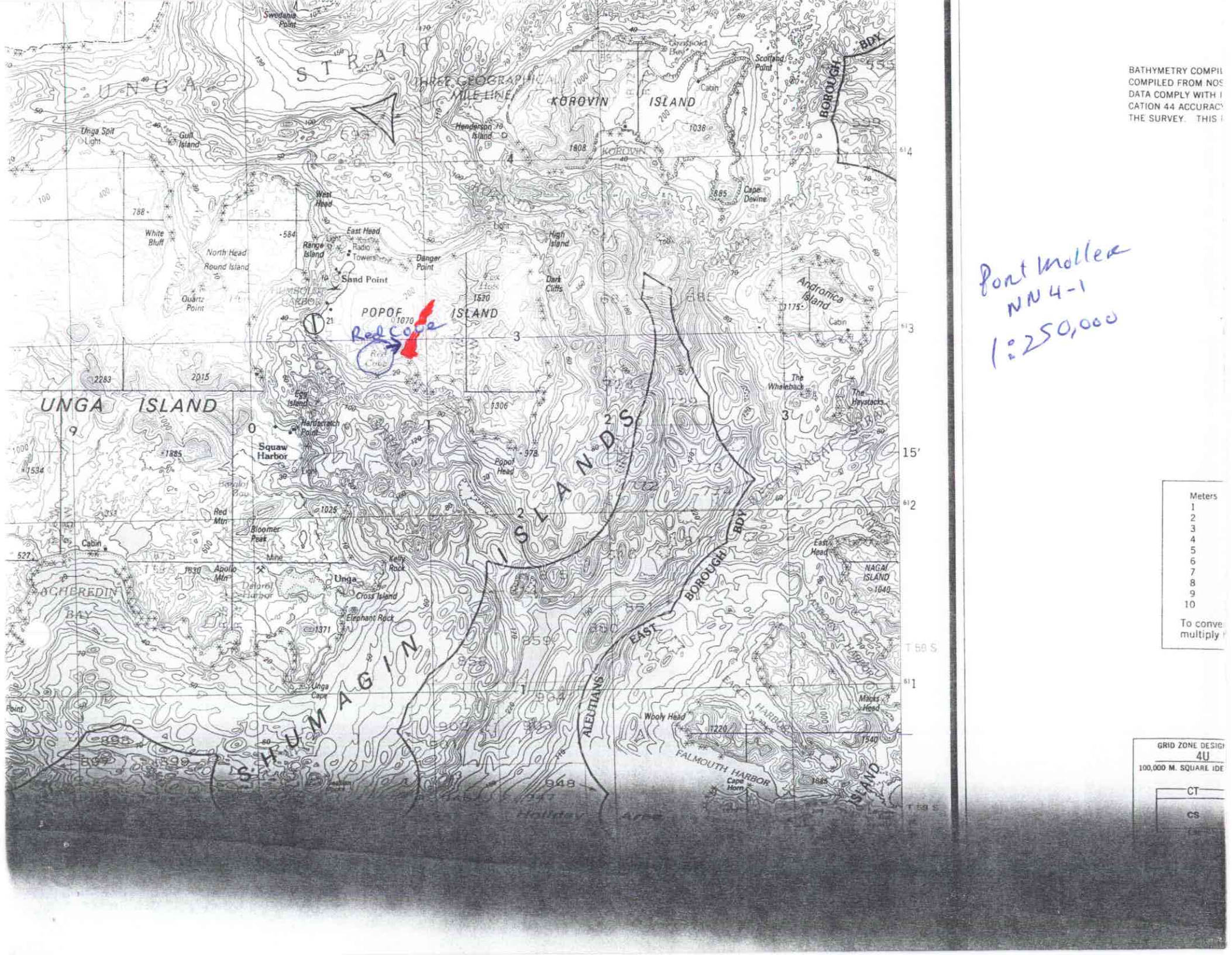

BATHYMETRY COMPIL
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DATA COMPLY WITH I
CATION 44 ACCURAC
THE SURVEY. THIS I

Port Moller
NN 4-1
1:250,000

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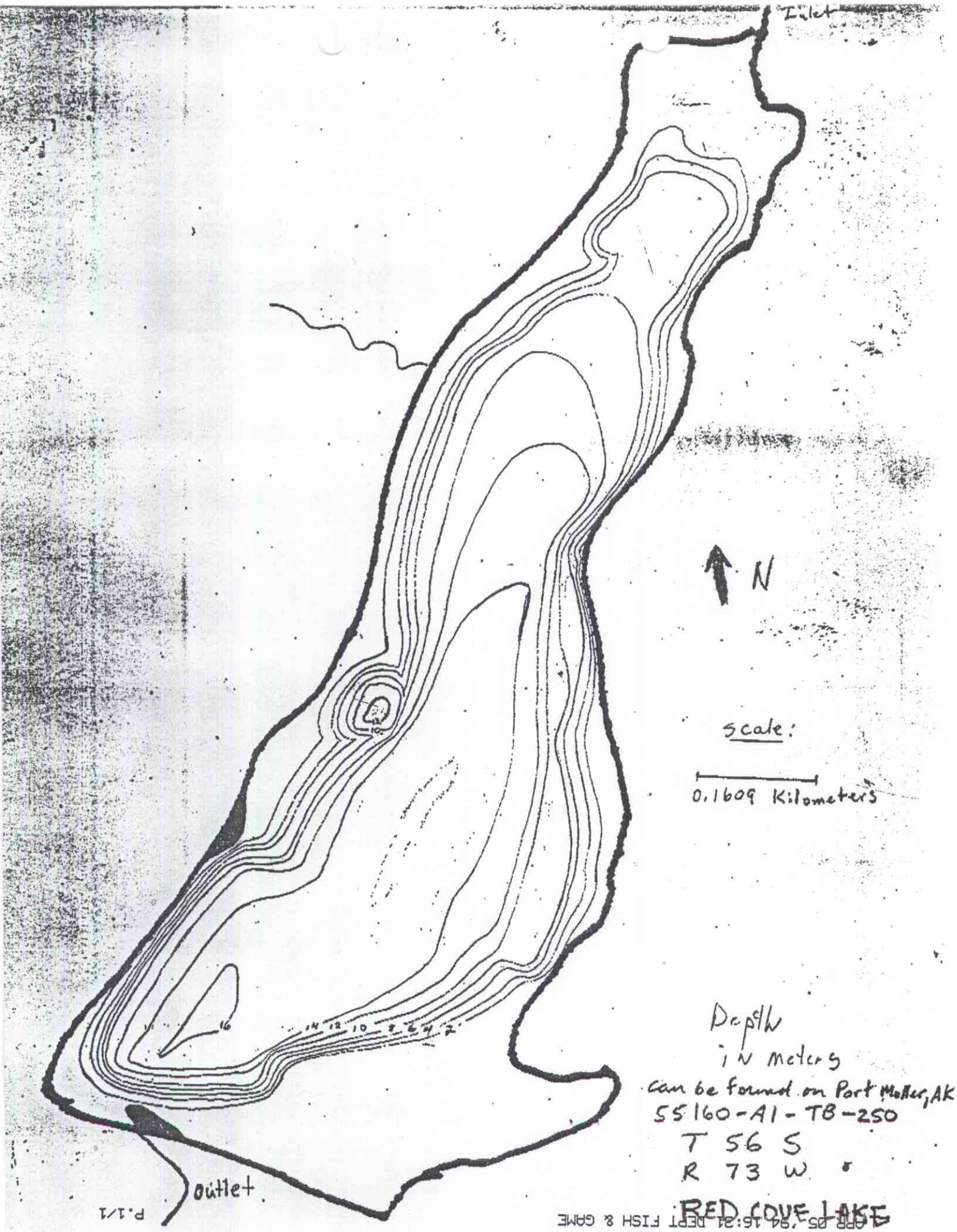

Depth
in meters

can be found on Port Moller, AK
55160-A1-TB-250
T 56 S
R 73 W

RED COVE LAKE